

ABSTRACT

PT. Z is a company that focus on steel industry in Indonesia. The company has a plant site called cold rolling mill. This company produces steel plates and coil. Relining roll is one kind of spare parts. The function is to reduce thickness of steel. Relining roll used in almost of machines in cold rolling mill. However, there is a problem in supply of spare parts called overstock in January-December 2017. The effect of overstock is high cost on holding inventory. The result of ABC analysis, there are seven spare parts with A category which are four spare parts with slow moving demand, two spare parts with erratic demand, and one spare parts with lumpy demand. Spare parts with slow and erratic demand use periodic review (R,s,Q) policy and spare parts with lumpy demand use periodic review (R,S) policy. The result of calculation of using periodic review in proposed condition is 99,98%. And the result of calculation of total cost inventory using periodic review (R,s,Q) and periodic review (R,S) is Rp 3.019.768 or 90,31% lower than actual condition.

Keywords : inventory policy, ABC analysis, ADI-CV analysis, periodic review (R,s,Q), periodic review (R,S), total cost of inventory